

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A powder mixture consisting of:

zinc/titanium mixed oxide particles, titanium dioxide particles and zinc oxide particles,
wherein the zinc/titanium mixed oxide particles have a composition according to the formula $(\text{ZnO})_{1-x}(\text{TiO}_2)_x$, ~~where~~ wherein $0.01 < x < 0.99$ [[,]];
and are obtained from a thermal process, ~~and~~
wherein the powder mixture exhibits remission which, in the UV range from 320 to 400 nm, is lower than that of titanium dioxide and, in the UV range below 320 nm, is lower than that of zinc oxide.

Claim 2 (Currently Amended): A The powder mixture according to claim 1, ~~characterised in that~~ wherein the content of zinc/titanium mixed oxide particles is at least 50 wt.%, particularly preferably at least 80 wt.%.

Claim 3 (Currently Amended): A The powder mixture according to ~~claims 1 or 2~~ claim 1, ~~characterised in that~~ wherein the zinc/titanium mixed oxide particles have a composition $(\text{ZnO})_{1-x}(\text{TiO}_2)_x$, where $0.05 < x < 0.80$.

Claim 4 (Currently Amended): A The powder mixture according to ~~claims 1 to 3~~ claim 1, ~~characterised in that~~ wherein the zinc/titanium mixed oxide particles are crystalline.

Claim 5 (Currently Amended): A The powder mixture according to ~~claims 1 to 4~~
claim 1, ~~characterised in that~~ wherein the isoelectric point is between that of zinc oxide and
that of titanium dioxide.

Claim 6 (Currently Amended): A The powder mixture according to ~~claims 1 to 5~~
claim 1, ~~characterised in that~~ wherein the proportion of the rutile modification of the titanium
dioxide particles amounts to at least 1%, relative to the sum of rutile, anatase and brookite
modification.

Claim 7 (Currently Amended): A The powder mixture according to ~~claims 1 to 6~~
claim 1, ~~characterised in that~~ wherein the BET surface area is between 1 and 100 m²/g.

Claim 8 (Currently Amended): A The powder mixture according to ~~claims 1 to 7~~
claim 1, ~~characterised in that~~ wherein the chloride content is less than 500 ppm.

Claim 9 (Currently Amended): A process for the production of the powder mixture
according to ~~claims 1 to 8~~ claim 1, ~~characterised in that~~ wherein an aerosol, which contains a
zinc compound, is homogeneously mixed with a mixture containing a titanium compound,
optionally an inert gas, a fuel gas and a gas containing free oxygen in a mixing chamber of a
burner as is used for the production of pyrogenic oxides, the mixture of all the components is
ignited at the mouth of the burner and combusted in a cooled flame tube, then the resultant
solids are separated from the gaseous reaction products, optionally purified, and thermally
treated.

Claim 10 (Currently Amended): A The process according to claim 9, ~~characterised in that~~ wherein the zinc compound and the titanium compound are present in a ratio such that the reaction product contains between 20 and 95 wt.% of zinc oxide.

Claim 11 (Currently Amended): A The process according to ~~claims 9 or 10~~ claim 9, ~~characterised in that~~ wherein titanium tetrachloride is used as the titanium compound.

Claim 12 (Currently Amended): A The process according to ~~claims 9 to 11~~ claim 9, ~~characterised in that~~ wherein the aerosol is produced by atomisation by means of a two-fluid nozzle or by an aerosol generator.

Claim 13 (Currently Amended): A process for the production of the powder mixture according to ~~claims 1 to 8~~ claim 1, ~~characterised in that~~ wherein titanium dioxide powder is dispersed in the presence of a solution of a zinc compound, wherein the ratio of titanium dioxide and zinc salt corresponds to the subsequently desired ratio of titanium dioxide and zinc oxide in the final product, the mixed oxide particles being calculated separately as titanium dioxide and zinc oxide, then the solvent is removed by evaporation and the residue is thermally treated.

Claim 14 (Currently Amended): A The process according to ~~claims 9 to 13~~ claim 9, ~~characterised in that~~ wherein the thermal treatment proceeds at temperatures of 400 to 600°C over a period of 0.5 to 8 hours.

Claim 15 (Currently Amended): A The process according to ~~claims 9 to 14~~ claim 9, ~~characterised in that~~ wherein zinc chloride, zinc nitrate and/or organozinc compounds are used as the zinc compound.

Claim 16 (Currently Amended): A The process according to ~~claims 13 to 15~~ claim 13, ~~characterised in that~~ wherein the titanium dioxide is produced pyrogenically.

Claim 17 (Currently Amended): A sunscreen preparation ~~containing~~ comprising the powder mixture according to ~~claims 1 to 8~~ claim 1, wherein the content of the powder mixture is between 0.01 and 25 wt.%, relative to the quantity of the sunscreen preparation.

Claim 18 (Canceled).

Claim 19 (New): An adsorbent for UV radiation comprising the powder mixture according to claim 1.